

10/089783

JC10 Rec'd PCT/PTO 01 APR 2002

SEQUENCE LISTING

5 <110> SmithKlin Beecham Biologicals
 <120> Novel compounds
 <130> BC45263
 10 <160> 72
 <170> FastSEQ for Windows Version 3.0
 15 <210> 1
 <211> 2407
 <212> DNA
 <213> Artificial Sequence
 20 <400> 1
 tggggaggca gaaggcagac tgatcacttg aggccaggag tttgagacct catgtctaaa 60
 aaaaaaaaaat tctgtgaggt gaggttttatt gttattccct ctctacagat atggaaactg 120
 aggctgagaa tcagaacccat tcacaagaca aaaatccccc agttggcaga tccagggttg 180
 caagccaggc ctgtgcagcc ccaaaaccag tgcttggtta accactgtgt ggtgaccaca 240
 25 ccgctccagg ccaacagctt ggggctaagt cttcacgttg cctttcacca ttaaataata 300
 gggctgccct ttgttgaagc cctgcactcc cagtgcggc cataataacc ttcagggtgt 360
 ctgctttctg ccttctctag catggccaag tatttcgga acaacttcat taatccccac 420
 atttactccg gaggatcac caagctgatc ttttgctggg acttactgt cactcatgaa 480
 aaagctgtga agctaaaaca gaagaatctt agcactgaga taaggagaa cctgtcagag 540
 30 ctccgtcagg agaattccaa gttgacgttc aatcagctgc tgaccgctt ctctgcctac 600
 atggtagcct gggttgtctc tacaggagtg gccatagcct gctgtgcagc cgtttattac 660
 ctggtctagt acaacttaga gtctctgaag acacacagta accctggggc ggtgctgta 720
 ctgcctttcg ttgtgtcctg catatctctg gccgtgccat gcactactc catgttcagg 780
 cttgtggaga ggtacgagat gccacggcac gaagtctacg ttctcctgat ccgaaacatc 840
 35 tttttgaaaa tatcaatcat tggcattctt tgttactatt ggctcaacac cgtggccctg 900
 tctggtgaag agtgttgagg aaccctcatt ggccaggaca tctaccggt ccttctgatg 960
 gattttgtgt tctctttagt caattccttc ctgggggagt ttctgaggag aatcattggg 1020
 atgcaactga tcacaagtct tggccttcag gaggttgaca ttgccaggaa cgttctagaa 1080
 ctgactctat cacaactctt ggtgtggatt ggcatctctt tctgccccct gctgcccttt 1140
 40 atccaaatga ttatgctttt catcatgttc tactccaaa atatcagcct gatgatgaat 1200
 ttccagcctc cgagcaaagc ctggcggggc tcacagatga tgactttctt catcttcttg 1260
 ctctttttcc catccttcac cggggtcttg tgcaccctgg ccatcaccat ctggagattg 1320
 aagccttcag ctgactgttg cctttttcga ggtctgcctc tcttcattca ctccatctac 1380
 agctggatcg acaccctaag tacacggcct ggctacctgt gggttgtttg gatctatcgg 1440
 45 aacctcattg gaagtgtgca cttctttttc atcctcacc tcattgtgct aatcatcacc 1500
 tatctttact ggcagatcac agagggaagg aagattatga taaggctgct ccatgagcag 1560
 atcattaatg agggcaaaga taaaatgttc ctgatatgaa aattgatcaa gctgcaggat 1620
 atggagaaga aagcaaaccc cagctcactt gttctggaaa ggagagaggt ggagcaacaa 1680
 ggctttttgc atttggggga acatgatggc agtcttgact tgcgatctag aagatcagtt 1740
 50 caagaaggta atccaagggc ctgatgactc ttttggtaac cagacaccaa tcaaataagg 1800
 ggaggagacg aaaatggaat gatttcttcc atgccacctg tgcctttagg aactgcccag 1860
 aagaaaatcc aaggctttag ccaggagcgg aaactgacta ccatgtaatt atcaaagtaa 1920
 aattgggcat tccatgctat ttttaatacc tggattgctg atttttcaag acaaaatact 1980
 tgggggtttc caataaagat tgttgaata ttgaaatgag cctacaaaaa cctaggaaga 2040
 55 gataactagg gaataatgta tattatcttc aagaaatgtg tgcaggaatg attggttctt 2100
 agaaatctct cctgccagac ttcccagacc tggcaaaagt ttagaaactg ttgctaagaa 2160
 aagtgggtcca tcctgaataa acatgtaata ctccagcagg gatatgaagc ctctgaattg 2220
 tagaacctgc atttatttgt gactttgaac taaagacatc ccccatgtcc caaagggtga 2280
 atacaaccag aggtctcatc tctgaacttt cttgcgtact gattacatga gtctttggag 2340
 60 tcgggggatg aggaggttct gccctgtga ggtgttatac atgaccatca aagtcctacg 2400
 tcaagct 2407
 <210> 2
 <211> 460
 <212> PRT
 <213> Artificial Sequence
 65

<400> 2

	Met	Ala	Lys	Tyr	Phe	Arg	Asn	Asn	Ph	Ile	Asn	Pro	His	Il	Tyr	Ser
	1				5					10					15	
5	Gly	Gly	Ile	Thr	Lys	Leu	Ile	Phe	Cys	Trp	Asp	Phe	Thr	Val	Thr	His
				20				25						30		
	Glu	Lys	Ala	Val	Lys	Leu	Lys	Gln	Lys	Asn	Leu	Ser	Thr	Glu	Ile	Arg
			35					40					45			
10	Glu	Asn	Leu	Ser	Glu	Leu	Arg	Gln	Glu	Asn	Ser	Lys	Leu	Thr	Phe	Asn
		50					55					60				
	Gln	Leu	Leu	Thr	Arg	Phe	Ser	Ala	Tyr	Met	Val	Ala	Trp	Val	Val	Ser
	65				70						75				80	
	Thr	Gly	Val	Ala	Ile	Ala	Cys	Cys	Ala	Ala	Val	Tyr	Tyr	Leu	Ala	Glu
				85					90					95		
15	Tyr	Asn	Leu	Glu	Phe	Leu	Lys	Thr	His	Ser	Asn	Pro	Gly	Ala	Val	Leu
				100				105						110		
	Leu	Leu	Pro	Phe	Val	Val	Ser	Cys	Ile	Asn	Leu	Ala	Val	Pro	Cys	Ile
			115					120					125			
20	Tyr	Ser	Met	Phe	Arg	Leu	Val	Glu	Arg	Tyr	Glu	Met	Pro	Arg	His	Glu
		130					135					140				
	Val	Tyr	Val	Leu	Leu	Ile	Arg	Asn	Ile	Phe	Leu	Lys	Ile	Ser	Ile	Ile
	145					150					155				160	
	Gly	Ile	Leu	Cys	Tyr	Trp	Leu	Asn	Thr	Val	Ala	Leu	Ser	Gly	Glu	
				165					170					175		
25	Glu	Cys	Trp	Glu	Thr	Leu	Ile	Gly	Gln	Asp	Ile	Tyr	Arg	Leu	Leu	Leu
				180				185						190		
	Met	Asp	Phe	Val	Phe	Ser	Leu	Val	Asn	Ser	Phe	Leu	Gly	Glu	Phe	Leu
			195					200					205			
30	Arg	Arg	Ile	Ile	Gly	Met	Gln	Leu	Ile	Thr	Ser	Leu	Gly	Leu	Gln	Glu
		210					215						220			
	Phe	Asp	Ile	Ala	Arg	Asn	Val	Leu	Glu	Leu	Ile	Tyr	Ala	Gln	Thr	Leu
	225					230					235				240	
	Val	Trp	Ile	Gly	Ile	Phe	Phe	Cys	Pro	Leu	Leu	Pro	Phe	Ile	Gln	Met
				245						250				255		
35	Ile	Met	Leu	Phe	Ile	Met	Phe	Tyr	Ser	Lys	Asn	Ile	Ser	Leu	Met	Met
				260					265					270		
	Asn	Phe	Gln	Pro	Pro	Ser	Lys	Ala	Trp	Arg	Ala	Ser	Gln	Met	Met	Thr
			275					280					285			
40	Phe	Phe	Ile	Phe	Leu	Leu	Phe	Phe	Pro	Ser	Phe	Thr	Gly	Val	Leu	Cys
		290					295					300				
	Thr	Leu	Ala	Ile	Thr	Ile	Trp	Arg	Leu	Lys	Pro	Ser	Ala	Asp	Cys	Gly
	305					310					315				320	
	Pro	Phe	Arg	Gly	Leu	Pro	Leu	Phe	Ile	His	Ser	Ile	Tyr	Ser	Trp	Ile
				325						330				335		
45	Asp	Thr	Leu	Ser	Thr	Arg	Pro	Gly	Tyr	Leu	Trp	Val	Val	Trp	Ile	Tyr
				340					345					350		
	Arg	Asn	Leu	Ile	Gly	Ser	Val	His	Phe	Phe	Phe	Ile	Leu	Thr	Leu	Ile
			355					360					365			
50	Val	Leu	Ile	Ile	Thr	Tyr	Leu	Tyr	Trp	Gln	Ile	Thr	Glu	Gly	Arg	Lys
		370					375					380				
	Ile	Met	Ile	Arg	Leu	Leu	His	Glu	Gln	Ile	Ile	Asn	Glu	Gly	Lys	Asp
	385					390					395				400	
	Lys	Met	Phe	Leu	Ile	Glu	Lys	Leu	Ile	Lys	Leu	Gln	Asp	Met	Glu	Lys
				405						410				415		
55	Lys	Ala	Asn	Pro	Ser	Ser	Leu	Val	Leu	Glu	Arg	Arg	Glu	Val	Glu	Gln
				420					425					430		
	Gln	Gly	Phe	Leu	His	Leu	Gly	Glu	His	Asp	Gly	Ser	Leu	Asp	Leu	Arg
			435					440					445			
60	Ser	Arg	Arg	Ser	Val	Gln	Glu	Gly	Asn	Pro	Arg	Ala				
		450					455					460				

<210> 3

<211> 2521

<212> DNA

65 <213> Artificial Sequence

WO 01/23417

PCT/EP00/09500

<400> 3

	tgaggcagac	tgatcacttg	aggccaggag	tttgagacct	catgtctaaa	60
	aaaaaaaat	tctgtgaggt	gagttttatt	gttattccct	ctctacagat	120
	aggctgagaa	tcagaacccat	tcacaagaca	aaaatcccc	agttggcaga	180
5	caagccaggc	ctgtgcagcc	ccaaaaccag	tgcttggtta	accactgtgt	240
	ccgctccagg	ccaacagctt	ggggctaagt	cttcacgttg	cctttcacca	300
	gggtgcacct	ttgttgaagc	cctgcactcc	cagtgcggc	cataataacc	360
	ctgctttctg	ccttctctag	catggccaag	tatttccgga	acaacttcat	420
	attractccg	gagggatcac	caagctgac	ttttgctggg	acttactgt	480
10	aaagctgtga	agctaaaaca	gaagaatctt	agcactgaga	taagggagaa	540
	ctccgtcagg	agaattccaa	gttgacgttc	aatcagctgc	tgacccgctt	600
	atggtagcct	gggtgtcttc	tacaggagtg	gccatagcct	gctgtgcagc	660
	ctggctgagt	acaacttaga	gttcctgaag	acacacagta	accctggggc	720
	ctgcctttcg	ttgtgtcctg	cattctggcc	gtgccatgca	tctactccat	780
15	gtggagaggt	acgagatgcc	acggcacgaa	gtctacgttc	tcctgatccg	840
	atgtagttct	caagtatggg	atgtacagat	gggcaggcag	tgacgcaca	900
	ggctgaggag	gggactgaaa	tcattccagc	ttccccttag	tcaagctaaa	960
	aaaatatcaa	tcattggcat	tctttgttac	tattggctca	acaccgtggc	1020
	gaagagtgtt	gggaaaccct	cattggccag	gacatctacc	ggctccttct	1080
20	gtgttctctt	tagtcaattc	cttcctgggg	gagtttctga	ggagaatcat	1140
	ctgatcacaa	gtcttggcct	tcaggagttt	gacattgcca	ggaacgttct	1200
	tatgcacaaa	ctctgggtgtg	gattggcatc	ttcttctgcc	ccctgctgcc	1260
	atgattatgc	ttttcatcat	gttctactcc	aaaaatatca	gcctgatgat	1320
	cctccgagca	aagcctggcg	ggcctcacag	atgatgactt	tcttcatctt	1380
25	ttcccatcct	tcaccggggg	cttgtgcacc	ctggccatca	ccatctggag	1440
	tcagctgact	gtggcccttt	tcgaggtctg	cctctcttca	ttcactccat	1500
	atcgacaccc	taagtacacg	gcctggctac	ctgtgggttg	tttggatcta	1560
	attggaagtg	tgacttctt	tttcatcctc	accctcattg	tgctaatacat	1620
	tactggcaga	tcacagaggg	aaggaagatt	atgataaggc	tgctccatga	1680
30	aatgagggca	aagataaaat	gttcctgata	gaaaaattga	tcaagctgca	1740
	aagaaagcaa	acccagctc	acttgttctg	gaaaggagag	aggtggagca	1800
	ttgcatttgg	gggaacatga	tggcagtctt	gacttgcgat	ctagaagatc	1860
	ggtaatccaa	gggcctgatg	actcttttgg	taaccagaca	ccaatcaa	1920
	gacgaaaaatg	gaatgatttc	ttccatgcc	cctgtgcctt	taggaaactgc	1980
35	atccaaggct	ttagccagga	gcggaaactg	actaccatgt	aattatcaaa	2040
	gcattccatg	catattttaa	tacctggatt	gctgattttt	caagacaaaa	2100
	tttccataaa	agattgttgt	aatattgaaa	tgagcctaca	aaaacctagg	2160
	tagggaataa	tgtatattat	cttcaagaaa	tgtgtgcagg	aatgattggg	2220
	ctctcctgcc	agacttccca	gacctggcaa	aggttttagaa	actgttgcta	2280
40	tccatcctga	ataaacatgt	aatactccag	cagggatatg	aagcctctga	2340
	ctgcatttat	ttgtgacttt	gaactaaaga	catcccccat	gtcccaaagg	2400
	ccagaggtct	catctctgaa	ctttcttgcg	tactgattac	atgagtcttt	2460
	atggaggagg	ttctgcccct	gtgaggtgtt	atacatgacc	atcaaagtcc	2520
45	t					2521

<210> 4
 <211> 154
 <212> PRT
 <213> Artificial Sequence

50 <400> 4

	Met	Ala	Lys	Tyr	Phe	Arg	Asn	Asn	Phe	Ile	Asn	Pro	His	Ile	Tyr	Ser
	1				5					10					15	
55	Gly	Gly	Ile	Thr	Lys	Leu	Ile	Phe	Cys	Trp	Asp	Phe	Thr	Val	Thr	His
				20					25					30		
	Glu	Lys	Ala	Val	Lys	Leu	Lys	Gln	Lys	Asn	Leu	Ser	Thr	Glu	Ile	Arg
			35					40					45			
	Glu	Asn	Leu	Ser	Glu	Leu	Arg	Gln	Glu	Asn	Ser	Lys	Leu	Thr	Phe	Asn
		50					55					60				
60	Gln	Leu	Leu	Thr	Arg	Phe	Ser	Ala	Tyr	Met	Val	Ala	Trp	Val	Val	Ser
		65				70					75				80	
	Thr	Gly	Val	Ala	Ile	Ala	Cys	Cys	Ala	Ala	Val	Tyr	Tyr	Leu	Ala	Glu
				85						90				95		
	Tyr	Asn	Leu	Glu	Phe	Leu	Lys	Thr	His	Ser	Asn	Pro	Gly	Ala	Val	Leu
65			100						105					110		
	Leu	Leu	Pro	Phe	Val	Val	Ser	Cys	Ile	Leu	Ala	Val	Pro	Cys	Ile	Tyr

WO 01/23417

PCT/EP00/09500

115 120 125
 Ser Met Ph Arg Leu Val Glu Arg Tyr Glu Met Pro Arg His Glu Val
 130 135 140
 Tyr Val Leu Leu Ile Arg Arg Gly Leu Met
 5 145 150

<210> 5
 <211> 1960
 <212> DNA
 10 <213> Artificial Sequence

<400> 5
 atcttttgcg gggacttcac tgtcactcat gaaaaagctg tgaagctaaa acagaagaat 60
 cttagcactg agataaggga gaacctgtca gagctccgctc aggagaattc caagttgacg 120
 15 ttcaatcagc tgctgaccog cttctctgcc tacatggtag cctgggttgt ctctacagga 180
 gtggccatag cctgctgtgc agccgtttat tacctggctg agtacaactt agagttcctg 240
 aagacacaca gtaaccctgg ggcggtgctg ttactgcctt tcggtgtgtc ctgcattaat 300
 ctggccgctgc catgcatcta ctccatgttc aggcctgtgg agaggtacga gatgccacgg 360
 cactgaagtct acgttctcct gatccgaaac atctttttga aaatatcaat cattggcatt 420
 20 ctttgttact attggctcaa caccgtggcc ctgtctgggtg aagagtgttg ggaaccctc 480
 attggccagg acatctaccg gctccttctg atggattttg tggtctcttt agtcaattcc 540
 ttcctggggg agtttctgag gagaatcatt gggatgcaac tgatcacaaag tcttggcctt 600
 caggagtttg acattgccag gaacgtttcta gaactgatct atgcacaaac tctggtgttg 660
 attggcatct tcttctgccc cctgctgccc tttatccaaa tgattatgct tttcatcatg 720
 25 ttctactcca aaaatatcag cctgatgatg aatttccagc ctccgagcaa agcctggcgg 780
 gcctcacaga tgatgacttt ctcatcttc ttgctctttt tcccatcttt caccggggtc 840
 ttgtgcacc tggccatcac catctggaga ttgaagcctt cagctgactg tggccctttt 900
 cgaggctctgc ctctcttcat tcactccatc tacagctgga tcgacaccct aagtacacgg 960
 cctggctacc tgtgggttgt ttggatctat cggaaacctca ttggaagtgt gcacttcttt 1020
 30 ttcatcctca ccctcattgt gctgatcatc acctatcttt actggcagat cacagaggga 1080
 aggaagatta tgataaggct gctccatgag cagatcatta atgagggcaa agataaaatg 1140
 ttctgtatag aaaaattgat caagctgcag gatattggaga agaaagcaaa cccagctca 1200
 cttgttcttg aaaggagaga ggtggagcaa caaggctttt tgcatttggg ggaacatgat 1260
 ggcagtcttg acttgcgac tagaagatca gttcaagaag gtaatccaag ggctgatga 1320
 35 ctcttttgggt aaccagacac caatcaaata aggggaggag atgaaaatgg aatgatttct 1380
 tccatgccac ctgtgccttt aggaactgcc cagaagaaaa tccaaggctt tagccaggag 1440
 cggaactga ctaccatgta attatcaaag taaaattggg cattccatgc tatttttaat 1500
 acctggattg ctgatttttc aagacaaaat acttgggggtt ttccaataaa gattgttgta 1560
 atattgaaat gagcctacaa aaacctagga agagataact agggataaat gtatattatc 1620
 40 ttcaagaaat gtgtgcagaa atgattgggt cttagaaatc tctcctgcca gacttcccga 1680
 acctggcaaa ggtttagaaa ctgttgctaa gaaaagtggg ccattcctgaa taaacatgta 1740
 atactccagc agggatatga agcctctgaa ttgtagaacc tgcatttatt tgtgactttg 1800
 aactaaagac atcccccatg tcccaaaggt ggaatacaac cagagggtctc atctctgaac 1860
 tttcttgctg actgattaca tgagtctttg gagtccggga tggaggagggt tctgcccctg 1920
 45 tgaggtgtta tacatgacca tcaaagtcct acgtcaagct 1960

<210> 6
 <211> 438
 <212> PRT
 50 <213> artifical sequence

<400> 6
 Ile Phe Cys Trp Asp Phe Thr Val Thr His Glu Lys Ala Val Lys Leu
 1 5 10 15
 55 Lys Gln Lys Asn Leu Ser Thr Glu Ile Arg Glu Asn Leu Ser Glu Leu
 20 25 30
 Arg Gln Glu Asn Ser Lys Leu Thr Phe Asn Gln Leu Leu Thr Arg Phe
 35 40 45
 Ser Ala Tyr Met Val Ala Trp Val Val Ser Thr Gly Val Ala Ile Ala
 50 55 60
 60 Cys Cys Ala Ala Val Tyr Tyr Leu Ala Glu Tyr Asn Leu Glu Phe Leu
 65 70 75 80
 Lys Thr His Ser Asn Pro Gly Ala Val Leu Leu Leu Pro Phe Val Val
 85 90 95
 65 Ser Cys Il Asn Leu Ala Val Pro Cys Il Tyr Ser Met Phe Arg L u
 100 105 110

WO 01/23417

PCT/EP00/09500

Val Glu Arg Tyr Glu Met Pro Arg His Glu Val Tyr Val Leu Leu Ile
 115 120 125
 Arg Asn Ile Phe Leu Lys Ile Ser Ile Ile Gly Ile Leu Cys Tyr Tyr
 130 135 140
 5 Trp Leu Asn Thr Val Ala Leu Ser Gly Glu Glu Cys Trp Glu Thr Leu
 145 150 155 160
 Ile Gly Gln Asp Ile Tyr Arg Leu Leu Leu Met Asp Ph Val Phe Ser
 165 170 175
 10 Leu Val Asn Ser Phe Leu Gly Glu Phe Leu Arg Arg Ile Ile Gly Met
 180 185 190
 Gln Leu Ile Thr Ser Leu Gly Leu Gln Glu Phe Asp Ile Ala Arg Asn
 195 200 205
 Val Leu Glu Leu Ile Tyr Ala Gln Thr Leu Val Trp Ile Gly Ile Phe
 210 215 220
 15 Phe Cys Pro Leu Leu Pro Phe Ile Gln Met Ile Met Leu Phe Ile Met
 225 230 235 240
 Phe Tyr Ser Lys Asn Ile Ser Leu Met Met Asn Phe Gln Pro Pro Ser
 245 250 255
 20 Lys Ala Trp Arg Ala Ser Gln Met Met Thr Phe Phe Ile Phe Leu Leu
 260 265 270
 Phe Phe Pro Ser Phe Thr Gly Val Leu Cys Thr Leu Ala Ile Thr Ile
 275 280 285
 Trp Arg Leu Lys Pro Ser Ala Asp Cys Gly Pro Phe Arg Gly Leu Pro
 290 295 300
 25 Leu Phe Ile His Ser Ile Tyr Ser Trp Ile Asp Thr Leu Ser Thr Arg
 305 310 315 320
 Pro Gly Tyr Leu Trp Val Val Trp Ile Tyr Arg Asn Leu Ile Gly Ser
 325 330 335
 30 Val His Phe Phe Phe Ile Leu Thr Leu Ile Val Leu Ile Ile Thr Tyr
 340 345 350
 Leu Tyr Trp Gln Ile Thr Glu Gly Arg Lys Ile Met Ile Arg Leu Leu
 355 360 365
 His Glu Gln Ile Ile Asn Glu Gly Lys Asp Lys Met Phe Leu Ile Glu
 370 375 380
 35 Lys Leu Ile Lys Leu Gln Asp Met Glu Lys Lys Ala Asn Pro Ser Ser
 385 390 395 400
 Leu Val Leu Glu Arg Glu Val Glu Gln Gln Gly Phe Leu His Leu
 405 410 415
 40 Gly Glu His Asp Gly Ser Leu Asp Leu Arg Ser Arg Arg Ser Val Gln
 420 425 430
 Glu Gly Asn Pro Arg Ala
 435

45 <210> 7
 <211> 1219
 <212> DNA
 <213> Artificial Sequence

50 <400> 7
 ctgatgatga atttccagcc tccgagcaaa gcctggcggy cctcacagat gatgactttc 60
 ttcattcttct tgctcttttt cccatctttc accggggtct tgtgcaccct ggccatcacc 120
 atctggagat tgaagccttc agctgactgt ggcccttttc gaggtctgcc tctcttcatt 180
 cactccatct acagctggat cgacacccta agtacacggc ctggctacct gtgggttggt 240
 tggatctatc ggaacctcat tggaggtgtg cacttctttt tcatcctcac cctcattgtg 300
 55 ctgatcatca cctatcttta ctggcagatc acagagggaa ggaagattat gataaggctg 360
 ctccatgagc agatcattaa tgagggcaaa gataaaatgt tcctgataga aaaattgatc 420
 aagctgcagg atatggagaa gaaagcaaac ccagctcac ttgttctgga aaggagagag 480
 gtggagcaac aaggcttttt gcatttgggg gaacatgatg gcagtcttga cttgcgatct 540
 agaagatcag ttcaagaagg taatccaagg gcctgatgac tcttttggtg accagacacc 600
 60 aatcaataaa ggggaggaga tgaataatgga atgatttctt ccatgccacc tgtgccttta 660
 ggaactgccc agaagaaaat ccaaggcttt agccaggagc ggaaactgac taccatgtaa 720
 ttatcaaagt aaaattggc attccatgct atttttaata cctggattgc tgatttttca 780
 agacaaaata cttgggggtt tccaataaag attgttgtaa tattgaaatg agcctacaaa 840
 aacctaggaa gagataacta gggaataatg tatattatct tcaagaaatg tgtgcaggaa 900
 65 tgattgggtc ttgaaatct ctccctgccag acttcccaga cctggcaaag gtttagaac 960
 tgttgctaag aaaagtggc catcctgaat aaacatgtaa tactccagca gggatatgaa 1020

WO 01/23417

PCT/EP00/09500

```

gcctctgaat tgtagaacct gcatttattt gtgactttga actaaagaca tcccccatgt 1080
cccaaagggtg gaatacaacc agaggctctca tctctgaact ttcttgcgta ctgattacat 1140
gagtctttgg agtcggggat ggaggagggt ctgccctgt gaggtgttat acatgacat 1200
caaagtcccta cgtcaagct 1219

5      <210> 8
      <211> 191
      <212> PRT
      <213> Artificial Sequence

10     <400> 8
      Leu Met Met Asn Phe Gln Pro Pro Ser Lys Ala Trp Arg Ala Ser Gln
      1          5          10          15
      Met Met Thr Phe Phe Ile Phe Leu Leu Phe Phe Pro Ser Phe Thr Gly
      15          20          25          30
      Val Leu Cys Thr Leu Ala Ile Thr Ile Trp Arg Leu Lys Pro Ser Ala
      35          40          45
      Asp Cys Gly Pro Phe Arg Gly Leu Pro Leu Phe Ile His Ser Ile Tyr
      50          55          60
      20   Ser Trp Ile Asp Thr Leu Ser Thr Arg Pro Gly Tyr Leu Trp Val Val
      65          70          75          80
      Trp Ile Tyr Arg Asn Leu Ile Gly Ser Val His Phe Phe Phe Ile Leu
      85          90          95
      Thr Leu Ile Val Leu Ile Ile Thr Tyr Leu Tyr Trp Gln Ile Thr Glu
      100          105          110
      25   Gly Arg Lys Ile Met Ile Arg Leu Leu His Glu Gln Ile Ile Asn Glu
      115          120          125
      Gly Lys Asp Lys Met Phe Leu Ile Glu Lys Leu Ile Lys Leu Gln Asp
      130          135          140
      30   Met Glu Lys Lys Ala Asn Pro Ser Ser Leu Val Leu Glu Arg Arg Glu
      145          150          155          160
      Val Glu Gln Gln Gly Phe Leu His Leu Gly Glu His Asp Gly Ser Leu
      165          170          175
      35   Asp Leu Arg Ser Arg Arg Ser Val Gln Glu Gly Asn Pro Arg Ala
      180          185          190

      <210> 9
      <211> 10
      <212> PRT
      <213> Artificial Sequence

40     <400> 9
      Ile Thr Glu Gly Arg Lys Ile Met Ile Arg
      1          5          10

45     <210> 10
      <211> 9
      <212> PRT
      <213> Artificial Sequence

50     <400> 10
      Leu Leu Met Asp Phe Val Phe Ser Leu
      1          5

55     <210> 11
      <211> 9
      <212> PRT
      <213> Artificial Sequence

60     <400> 11
      Phe Leu Leu Phe Phe Pro Ser Phe Thr
      1          5

65     <210> 12
      <211> 9
      <212> PRT

```

		<213>	Artificial Sequence						
		<400>	12						
5	Gln	Met	Met	Thr	Phe	Phe	Ile	Phe	Leu
	1				5				
		<210>	13						
		<211>	9						
		<212>	PRT						
10		<213>	Artificial Sequence						
		<400>	13						
	Met	Met	Thr	Phe	Phe	Ile	Phe	Leu	Leu
	1				5				
15		<210>	14						
		<211>	9						
		<212>	PRT						
		<213>	Artificial Sequence						
20		<400>	14						
	Phe	Leu	Ile	Glu	Lys	Leu	Ile	Lys	Leu
	1				5				
25		<210>	15						
		<211>	9						
		<212>	PRT						
		<213>	Artificial Sequence						
30		<400>	15						
	Val	Leu	Leu	Ile	Arg	Asn	Ile	Phe	Leu
	1				5				
		<210>	16						
35		<211>	9						
		<212>	PRT						
		<213>	Artificial Sequence						
		<400>	16						
40	Leu	Val	Trp	Ile	Gly	Ile	Phe	Phe	Cys
	1				5				
		<210>	17						
		<211>	9						
45		<212>	PRT						
		<213>	Artificial Sequence						
		<400>	17						
	Thr	Leu	Ala	Ile	Thr	Ile	Trp	Arg	Leu
50	1				5				
		<210>	18						
		<211>	9						
		<212>	PRT						
55		<213>	Artificial Sequence						
		<400>	18						
	Leu	Ile	Phe	Cys	Trp	Asp	Phe	Thr	Val
	1				5				
60		<210>	19						
		<211>	9						
		<212>	PRT						
		<213>	Artificial Sequence						
65		<400>	19						

WO 01/23417

PCT/EP00/09500

Phe Leu Gly Glu Phe Leu Arg Arg Ile
 1 5
 5 <210> 20
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <400> 20
 10 Leu Leu Leu Pro Phe Val Val Ser Cys
 1 5
 15 <210> 21
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <400> 21
 20 Leu Leu Thr Arg Phe Ser Ala Tyr Met
 1 5
 25 <210> 22
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <400> 22
 30 Lys Leu Ile Phe Cys Trp Asp Phe Thr
 1 5
 35 <210> 23
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 <400> 23
 40 Leu Leu Leu Met Asp Phe Val Phe Ser Leu
 1 5 10
 45 <210> 24
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 <400> 24
 50 Leu Leu Met Asp Phe Val Phe Ser Leu Val
 1 5 10
 55 <210> 25
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 <400> 25
 60 Gln Met Met Thr Phe Phe Ile Phe Leu Leu
 1 5 10
 65 <210> 26
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 <400> 26
 Tyr Leu Ala Glu Tyr Asn Leu Glu Phe Leu
 1 5 10

WO 01/23417

PCT/EP00/09500

<210> 27
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 5
 <400> 27
 Lys Leu Ile Phe Cys Trp Asp Phe Thr Val
 1 5 10
 10
 <210> 28
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 15
 <400> 28
 Leu Leu Phe Phe Pro Ser Phe Thr Gly Val
 1 5 10
 20
 <210> 29
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 25
 <400> 29
 Gln Leu Leu Thr Arg Phe Ser Ala Tyr Met
 1 5 10
 30
 <210> 30
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 35
 <400> 30
 Thr Leu Val Trp Ile Gly Ile Phe Phe Cys
 1 5 10
 40
 <210> 31
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 45
 <400> 31
 Ser Gln Met Met Thr Phe Phe Ile Phe Leu
 1 5 10
 50
 <210> 32
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 55
 <400> 32
 Val Leu Leu Leu Pro Phe Val Val Ser Cys
 1 5 10
 60
 <210> 33
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 65
 <400> 33
 Ile Leu Cys Tyr Tyr Trp Leu Asn Thr Val
 1 5 10
 <210> 34
 <211> 10
 <212> PRT

WO 01/23417

PCT/EP00/09500

<213> Artificial Sequence

<400> 34
 Thr Leu Ile Val Leu Ile Ile Thr Tyr Leu
 5 1 5 10

<210> 35
 <211> 10
 <212> PRT
 10 <213> Artificial Sequence

<400> 35
 Tyr Val Leu Leu Ile Arg Asn Ile Phe Leu
 1 5 10

15 <210> 36
 <211> 10
 <212> PRT
 <213> Artificial Sequence

20 <400> 36
 Phe Val Phe Ser Leu Val Asn Ser Phe Leu
 1 5 10

25 <210> 37
 <211> 10
 <212> PRT
 <213> Artificial Sequence

30 <400> 37
 Leu Leu Leu Pro Phe Val Val Ser Cys Ile
 1 5 10

35 <210> 38
 <211> 10
 <212> PRT
 <213> Artificial Sequence

40 <400> 38
 Leu Ile Gly Ser Val His Phe Phe Phe Ile
 1 5 10

45 <210> 39
 <211> 10
 <212> PRT
 <213> Artificial Sequence

50 <400> 39
 Tyr Glu Met Pro Arg His Glu Val Tyr Val
 1 5 10

55 <210> 40
 <211> 10
 <212> PRT
 <213> Artificial Sequence

60 <400> 40
 Leu Leu Thr Arg Phe Ser Ala Tyr Met Val
 1 5 10

65 <210> 41
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<400> 41

WO 01/23417

PCT/EP00/09500

```

Ile Tyr Ser Gly Gly Ile Thr Lys Leu
1          5

    <210> 42
5    <211> 9
    <212> PRT
    <213> Artificial Sequence

    <400> 42
10  Val Tyr Tyr Leu Ala Glu Tyr Asn Leu
    1          5

    <210> 43
    <211> 9
15  <212> PRT
    <213> Artificial Sequence

    <400> 43
20  Tyr Tyr Trp Leu Asn Thr Val Ala Leu
    1          5

    <210> 44
    <211> 9
25  <212> PRT
    <213> Artificial Sequence

    <400> 44
Ile Tyr Arg Leu Leu Met Asp Phe
1          5
30

    <210> 45
    <211> 10
    <212> PRT
35  <213> Artificial Sequence

    <400> 45
Val Tyr Val Leu Leu Ile Arg Asn Ile Phe
1          5          10
40

    <210> 46
    <211> 10
    <212> PRT
    <213> Artificial Sequence

45  <400> 46
Cys Tyr Tyr Trp Leu Asn Thr Val Ala Leu
1          5          10

    <210> 47
50  <211> 10
    <212> PRT
    <213> Artificial Sequence

    <400> 47
55  Tyr Tyr Leu Ala Glu Tyr Asn Leu Glu Phe
    1          5          10

    <210> 48
    <211> 9
60  <212> PRT
    <213> Artificial Sequence

    <400> 48
65  Met Leu Phe Ile Met Phe Tyr Ser Lys
    1          5

```

WO 01/23417

PCT/EP00/09500

<210> 49
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 5
 <400> 49
 Leu Leu Ile Arg Asn Ile Phe Leu Lys
 1 5
 10
 <210> 50
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 15
 <400> 50
 Gly Leu Gln Glu Phe Asp Ile Ala Arg
 1 5
 20
 <210> 51
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 25
 <400> 51
 Lys Met Phe Leu Ile Glu Lys Leu Ile Lys
 1 5 10
 30
 <210> 52
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 35
 <400> 52
 Ile Met Leu Phe Ile Met Phe Tyr Ser Lys
 1 5 10
 40
 <210> 53
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 45
 <400> 53
 Lys Leu Ile Lys Leu Gln Asp Met Glu Lys
 1 5 10
 50
 <210> 54
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 55
 <400> 54
 Val Leu Leu Ile Arg Asn Ile Phe Leu Lys
 1 5 10
 60
 <210> 55
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 65
 <400> 55
 Met Pro Arg His Glu Val Tyr Val Leu
 1 5

<213> Artificial Sequence
 <400> 56
 Met Pro Arg His Glu Val Tyr Val L u Leu
 5 1 5 10
 <210> 57
 <211> 9
 <212> PRT
 10 <213> Artificial Sequence
 <400> 57
 Tyr Glu Met Pro Arg His Glu Val Tyr
 1 5
 15 <210> 58
 <211> 10
 <212> PRT
 20 <213> Artificial Sequence
 <400> 58
 Trp Glu Thr Leu Ile Gly Gln Asp Ile Tyr
 1 5 10
 25 <210> 59
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 30 <400> 59
 Val His Phe Phe Phe Ile Leu Thr Leu
 1 5
 35 <210> 60
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <400> 60
 40 Leu Arg Arg Ile Ile Gly Met Gln Leu
 1 5
 <210> 61
 <211> 9
 45 <212> PRT
 <213> Artificial Sequence
 <400> 61
 Leu Leu Met Asp Phe Val Phe Ser Leu
 50 1 5
 <210> 62
 <211> 9
 <212> PRT
 55 <213> Artificial Sequence
 <400> 62
 Met Gln Leu Ile Thr Ser Leu Gly Leu
 1 5
 60 <210> 63
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 65 <400> 63

WO 01/23417

PCT/EP00/09500

Phe Val Phe Ser Leu Val Asn Ser Phe
 1 5

5 <210> 64
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <400> 64

10 Phe Ile Leu Thr Leu Ile Val Leu Ile
 1 5

15 <210> 65
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <400> 65

20 Trp Gln Ile Thr Glu Gly Arg Lys Ile
 1 5

25 <210> 66
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <400> 66

30 Met Phe Tyr Ser Lys Asn Ile Ser Leu
 1 5

35 <210> 67
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <400> 67

Phe Ile Met Phe Tyr Ser Lys Asn Ile
 1 5

40 <210> 68
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <400> 68

45 Trp Arg Ala Ser Gln Met Met Thr Phe
 1 5

50 <210> 69
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <400> 69

55 Phe Phe Phe Ile Leu Thr Leu Ile Val
 1 5

60 <210> 70
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <400> 70

65 Phe Arg Leu Val Glu Arg Tyr Glu Met
 1 5

15